

basing the data link connection identifier (DLCI) on interactive application information.

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H/P  
74. (New) The method of claim 73, wherein said interactive application information corresponds to a telnet application.

75. (New) The method of claim 73, wherein said interactive application information corresponds to a file transfer protocol (FTP) application.

76. (New) The method of claim 73, wherein said interactive application information corresponds to a network based application.

77. (New) The method of claim 68, wherein said dynamic computation comprises basing the data link connection identifier (DLCI) on a layer 3 network address.

78. (New) The method of claim 77, wherein said layer 3 network address comprises an internal company address.

79. (New) The method of claim 78, wherein said internal company address is located within a virtual private network.

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### REMARKS

Applicants submit the present Amendment in response to the Office Action mailed April 10, 2002. The Office Action has been carefully reviewed, and these remarks are responsive thereto. By previous Office Actions, claims 2, 5-10, 21-22, 31-32, 34-35, 37, 52, and 54-55 were allowed. By previous amendment, claims 1, 3-4, 11-20, 23-30, 33, 36, 38-51, and 53 were cancelled. Claims 56-72 are pending, and they stand rejected. By this amendment and response, Applicants amend claim 68 and traverse the rejection of claims 56-72. Accordingly, claims 56-72 remain pending. In addition, by this amendment, Applicants add new claims 73-79. Support for claims 73-79 can be found in the specification at least on page 15. Reconsideration of the instant application is respectfully requested.

### *Information Disclosure Statement*

The Office Action indicated that the Information Disclosure Statement fails to comply

with 37 C.F.R. § 1.97 and § 1.98 because the publication date of various references is missing. A supplemental Information Disclosure Statement is submitted concurrently herewith, providing dates of publication for documents for which no date of publication was previously provided.

***Claim Rejections – 35 U.S.C. § 102***

Claim 68 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,521,914 to *Mavraganis et al.* *Mavraganis et al.* discloses a method of allowing an ISDN user to have switched access, as opposed to dedicated access, principally to a frame relay network. Thus, a Permanent Virtual Connection (PVC) is not allocated to the ISDN user until the user places a call to an interworking function (IWF), which connects the ISDN and the frame relay network. *Mavraganis et al.*, col. 3, lines 1-6. This allows more users to have connections because PVC's that are not in use, which would otherwise be dedicated to a particular user, can instead be allocated to other users. Col. 3, lines 23-24. *Mavraganis et al.* teaches pre-assigning one DLCI to an ISDN user for each frame relay destination of the user, col. 3, lines 9-11, but *Mavraganis et al.* does not teach using a dynamically computed DLCI to switch frame relay data packets to a plurality of destinations.

The legal standard for anticipation is well settled. In order for a claim to be anticipated, every limitation of the claim must be disclosed in a single prior art reference. MPEP § 706.02; *see also Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

Amended claim 68 recites, *inter alia*, “switching said frame relay data packets within the fast packet network responsive to a dynamically computed data link connection identifier (DLCI), each DLCI corresponding to a plurality of destinations.” Applicants amended claim 68 to include a “dynamically computed” DLCI, while *Mavraganis et al.* teaches a system with a “pre-assigned” DLCI (column 3, line 11). Furthermore, *Mavraganis et al.* teaches a system where each DLCI corresponds to a single destination (i.e., a single PVC), which is the standard method in the field, but claim 68 describes a “DLCI corresponding to a plurality of destinations.” Thus, Applicants respectfully submit that amended claim 68 is allowable over *Mavraganis et al.*

*Claim Rejections – 35 U.S.C. § 103*

The rejections of claims 56-67 and 69-72 under 35 U.S.C. § 103(a) rely principally upon U.S. Patent No. 6,115,748 to *Hauser* et al., U.S. Patent No. 5,521,914 to *Mavraganis* et al., and U.S. Patent No. 5,828,666 to *Focsaneanu* et al.

*Hauser* et al. discloses a prioritized shared buffer for a link-level flow control system. Data cells are assigned priorities depending upon their type of connection, so that higher priority connections experience less delay. *Hauser* et al., col. 12, line 63 to col. 13, line 4. *Hauser* et al. describes the priorities as “different categories of service levels, in terms of delay bounds.” Col. 12, lines 61-62. Cell traffic is controlled and cells are throttled through the use of link-level counters and registers, which are contained in a transmitter. Col. 1, lines 41-47 and 55-58.

*Mavraganis* et al. discloses a method of allowing an ISDN user to have switched access, as opposed to dedicated access, principally to a frame relay network. Thus, a PVC is not allocated to the ISDN user until the user places a call to an interworking function (IWF), which connects the ISDN and the frame relay network. *Mavraganis* et al., col. 3, lines 1-6. This allows more users to have connections because PVC’s that are not in use, which would otherwise be dedicated to a particular user, can instead be allocated to other users. Col. 3, lines 23-24. Finally, *Mavraganis* et al. teaches pre-assigning one DLCI to an ISDN user for each frame relay destination of the user. Col. 3, lines 9-11.

*Focsaneanu* et al. discloses a system for providing access for ISDN and standard modem users to several types of data networks and services through a single access module. The access module acts as an interface between customer premise equipment (CPE) and different types of communications networks. *Focsaneanu* et al., col. 4, lines 54-59. The communication networks can include PSTN, data networks, wireless networks, satellite networks, CATV, ATM, etc. Col. 4, lines 57-58. The access module extracts information content from the communication networks for services. Col. 4, lines 59-63. Thus, the system creates “a universal services network.” Col. 4, line 59.

Claim 69 stands rejected under 35 U.S.C. § 103(a) as being obvious over *Mavraganis* et al. in view of *Focsaneanu* et al. However, claim 69 depends from allowable claim 68. Thus, claim 69 is allowable at least as being dependent from an allowable base claim. See *In re Fine*,

837 F.2d 1071, 1076 (Fed. Cir. 1988).

A claim may be rejected under 35 U.S.C. § 103(a) if the invention would have been obvious to a person having ordinary skill in the art, in view of the prior art. More specifically, three elements must be satisfied for an obviousness rejection: (1) a motivation or suggestion to modify or combine the prior art references, (2) a reasonable expectation of success, and (3) a teaching or suggestion by the references of each limitation of the invention. MPEP § 706.02(j); *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). The motivation or suggestion to combine the prior art references can come from within the prior art references themselves or from the knowledge of one of ordinary skill in the art. MPEP § 2143.01; *see also In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998).

Hindsight cannot be used to take parts of prior art references to recreate an applicant's invention. *In re Gorman*, 933 F.2d 982, 987 (Fed. Cir. 1991); *Fine*, 837 F.2d at 1075. Thus, the requirement of a motivation or suggestion to combine prior art must be applied rigorously to avoid the temptation of hindsight, *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999), and an applicant's own invention disclosure cannot be the basis of the motivation or suggestion. *Vaeck*, 947 F.2d at 493. Furthermore, an applicant's disclosure cannot act as a "blueprint for piecing together the prior art," without a suggestion or motivation, to reject the invention. *Dembiczak*, 175 F.3d at 999.

Applicants respectfully traverse the rejection of claim 69 because there is no motivation or suggestion to combine *Mavraganis et al.* with *Focsaneanu et al.*, and even if combined, the combined references do not teach or suggest every limitation of claim 69. The Office Action states that the combination would be obvious because "*Focsaneanu et al.* teach [sic] the desirable advantage of providing simpler and more transparent delivery of information on an end-to-end basis and said simpler delivery of information being desirable to achieve efficient system operation in *Mavraganis et al.*" However, providing simpler and more transparent delivery of information to users would not make the system of switched access to frame relay more efficient. It would neither reduce the burden on the system nor increase the speed of the system. In addition, the Office Action does not specifically point out any suggestion or motivation to combine the references. The mere fact that the end result of a combination might be

advantageous does not equate to a specific suggestion or motivation. Thus, the only way to make this combination obvious is through hindsight reconstruction, which is clearly impermissible. *See Gorman*, 933 F.2d at 987.

Even if the references were combined, the references do not teach or suggest that “the plurality of destinations comprises a virtual private network.” The cited portion of *Focsaneanu et al.* refers to “private networks” meaning a local area network such as may exist in an office or a school. Col. 2, line 58. This is not a virtual private network as used in claim 69, which refers to a virtual private network that allows secure transmission of data between parties over the Internet or other wide area network. A phrase, such as “private networks,” cannot be taken out of context in order to make an obviousness rejection with the use of hindsight. *See Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 448 (Fed. Cir. 1986). Thus, because the combined references do not teach or suggest every claim limitation, Applicants respectfully submit that claim 69 is allowable over the combination of *Mavraganis et al.* and *Focsaneanu et al.*

Claims 56, 61, and 65-67 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hauser et al.* in view of *Mavraganis et al.* The Office Action states that the combination would be obvious because “*Mavraganis et al.* teach [sic] the desirable advantage of reducing cost to user [sic] by allowing calls to be set-up when needed and said reducing cost to user [sic] being desirable to achieve [a] more cost efficient system operation in *Hauser et al.*” However, a system for switched access to frame relay would not make a system for prioritized shared buffers more cost efficient because the number of users will be the same, or greater, so the burden on the system of *Hauser et al.* is not reduced. Also, *Hauser et al.* is concerned with the reliability of data transmissions, which *Mavraganis et al.* would not improve, since *Mavraganis et al.* focuses on reducing the cost of access to frame relay networks. In addition, as above, the mere fact that the end result of a combination might be advantageous does not equate to a specific suggestion or motivation.

Even if the references were combined they do not teach or suggest every limitation of any of the aforementioned claims. Claim 56 recites, *inter alia*, that the “header data comprises a service category indicator; and switching said data packets within the fast packet network

responsive to the header data, each service category indicator corresponding to a plurality of destinations.” The “service category indicator” in claim 56 is clearly different from the “categories of service” cited in *Hauser et al.* in the Office Action. Col. 12, line 61 to col. 13, line 4. The “service category indicator” of claim 56 refers to the type of network services for which data may be routed, such as the public Internet, a local intranet, live audio/video transmission, etc. See Specification, pg. 13, lines 16-19. In contrast, the “categories of service” in *Hauser et al.* refer to the priority of the type of connection (i.e., the delay bounds), and do not correspond to “a plurality of destinations.” Furthermore, *Mavraganis et al.* does not teach or suggest that each service category corresponds to a plurality of destinations. *Mavraganis et al.* merely discloses that a user will have a pre-assigned DLCI that corresponds to a PVC, which by definition connects to only one destination. Therefore, Applicants respectfully submit that claim 56 is allowable over the combination *Hauser et al.* in view of *Mavraganis et al.*

Claim 61 depends from allowable claim 56. Thus, claim 61 is at least allowable as being dependent from an allowable base claim. See *Fine*, 837 F.2d at 1076. Furthermore, claim 61 is not made obvious by the prior art. It recites, *inter alia*, “the step of discriminating between a plurality of service categories based on the header data so that packets with a first service category indicator receive a first Quality of Service (QoS) and packets with a second service category indicator receive a second QoS.” Although *Hauser et al.* mentions quality of service, col. 12, line 63, *Hauser et al.* does not teach or suggest *discriminating* between different service categories so that they receive different qualities of service. Rather, *Hauser et al.* discloses differentiating between categories of service “*within a single* quality of service.” Col. 12, line 62-63 (emphasis added). Therefore, Applicants respectfully submit that claim 61 is allowable over the combination *Hauser et al.* in view of *Mavraganis et al.*

Claim 65 was rejected over the combination of *Hauser et al.* in view of *Mavraganis et al.* However, claim 65 depends from claim 57, which was rejected over the combination of *Hauser et al.* in view of *Mavraganis et al.*, and further in view of *Focsaneanu et al.* Because the dependent claim was not rejected on at least the same prior art as its base claim, Applicants respectfully submit that the rejection of claim 65 is improper, and that any immediately successive rejection of claim 65 should not be made final. Even if claim 65 is rejected over

*Hauser et al.* in view of *Mavraganis et al.*, and further in view of *Focsaneanu et al.*, claim 65 would at least be allowable based on its dependency to claim 57. Thus, claim 65 is allowable as being dependent from an allowable base claim, as discussed below. *See Fine*, 837 F.2d at 1076.

Claims 66 and 67 depend from allowable claim 56. Thus, Applicants submit that claims 66 and 67 are at least allowable as being dependent from an allowable base claim. *See Fine*, 837 F.2d at 1076.

Claims 57-60, 62-64, and 70-72 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hauser et al.* in view of *Mavraganis et al.* as applied to claims 56 and 61, and further in view of *Focsaneanu et al.* The Office Action states that it would have been obvious to combine the references because “*Focsaneanu et al.* teach [sic] the desirable advantage of providing a [sic] more flexible and adaptable access to telecommunications network[s] in a multi-service environment and said more flexible and adaptable access being desirable to achieve less wasteful [sic] of resources and more efficient system operation in *Hauser et al.* in view of *Mavraganis et al.*” However, as discussed above, one of ordinary skill in the art would not be motivated to combine *Hauser et al.*, *Focsaneanu et al.*, and *Mavraganis et al.* *Focsaneanu et al.* would not make *Hauser et al.* and *Mavraganis et al.* more efficient and less wasteful because it would add services and traffic, rather than improve the efficiency and speed of the system or increase the reliability. In addition, as above, the mere fact that the end result of a combination might be advantageous does not equate to a specific suggestion or motivation. The combination cited in the Office Action improperly recreates Applicants’ invention by using “hindsight reconstruction to pick and choose” from the prior art. *Fine*, 837 F.2d at 1075.

Even if the references are combined they do not teach or suggest every limitation of any of the aforementioned claims. Claim 57 depends from allowable claim 56. Thus, claim 57 is at least allowable as being dependent from an allowable base claim. *See Fine*, 837 F.2d at 1076. Furthermore, while claim 57 requires “the step of routing responsive to user data,” the combination of *Hauser et al.* in view of *Mavraganis et al.* and further in view of *Focsaneanu et al.* fails to teach or suggest this type of routing. *Focsaneanu et al.* merely mentions “different types of traffic” and “data,” in the Background of the Invention. Col. 2, lines 39-40. *Mavraganis et al.* only teaches routing based upon a DLCI, which is header data. Col. 3, lines 9-

11. *Hauser et al.* merely teaches “categories of service” within a buffer that are defined in “terms of delay bounds.” Col. 12, lines 61-62. Hence, this prior art neither teaches nor suggests all of the claim limitations (i.e., *routing responsive to user data*). See MPEP § 2143.03. Therefore, Applicants respectfully submit that claim 57 is allowable over the combination of *Hauser et al.* in view of *Mavraganis et al.*, and further in view of *Focsaneanu et al.* because the combined references do not teach or suggest every claim limitation.

Claim 58 depends from allowable claim 56. Thus, claim 58 is at least allowable as being dependent from an allowable base claim. See *Fine*, 837 F.2d at 1076. In addition, the prior art does not teach or suggest “the step of routing within a virtual private network responsive to user data.” *Focsaneanu et al.* mentions the phrase “private networks” in reference to a network such as a local area network that may exist in an office or a school. As stated above, a private network is not a virtual private network as used in claim 69, which refers to a virtual private network that allows secure transmission of data between parties over the Internet or other wide area network. Finally, as discussed above in regard to claim 57, the combined references do not teach or suggest routing responsive to the user data. Therefore, Applicants respectfully submit that claim 58 is allowable over the combination *Hauser et al.* in view of *Mavraganis et al.*, and further in view of *Focsaneanu et al.*

Claim 59 depends from allowable claim 56. Thus, claim 59 is allowable as being dependent from an allowable base claim. See *Fine*, 837 F.2d at 1076. Moreover, as discussed above in regard to claim 58, the combined references do not teach or suggest “the step of routing within a virtual private network.” Even further, neither *Hauser et al.*, *Mavraganis et al.*, nor *Focsaneanu et al.* teach or suggest a “virtual private network comprising trading partners.” Finally, as discussed above in regard to claim 57, the combined references do not teach or suggest routing responsive to the user data. Therefore, Applicants respectfully submit that claim 59 is allowable over the combination *Hauser et al.* in view of *Mavraganis et al.*, and further in view of *Focsaneanu et al.*

Claim 60 depends from allowable claim 56. Thus, claim 60 is at least allowable as being dependent from an allowable base claim. See *Fine*, 837 F.2d at 1076. Furthermore, none of the prior art teaches or suggests “the step of routing within a closed user group responsive to the user



data.” *Focsaneanu et al.* mentions “private networks” and “academic networks,” col. 2, line 58, but it does not teach or suggest closed user groups. Finally, as discussed above in regard to claim 57, the combined references do not teach or suggest routing responsive to the user data. Therefore, Applicants respectfully submit that claim 60 is allowable over the combination *Hauser et al.* in view of *Mavraganis et al.*, and further in view of *Focsaneanu et al.*

Claims 62-64 depend from allowable claim 57. Thus, claims 62-64 are at least allowable as being dependent from an allowable based claim. *See Fine*, 837 F.2d at 1076.

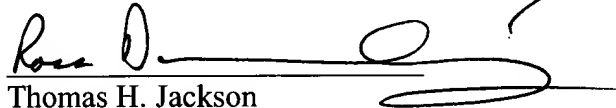
Claim 70 depends from allowable claim 69. Thus, claim 70 is at least allowable as being dependent from an allowable base claim. *See Fine*, 837 F.2d at 1076. Moreover, as discussed above in regard to claim 58, the combined references do not teach or suggest “the step of routing...within a virtual private network.” Therefore, Applicants respectfully submit that claim 70 is allowable over the combination *Hauser et al.* in view of *Mavraganis et al.*, and further in view of *Focsaneanu et al.*

Claims 71 and 72 depend from allowable claim 70. Thus, claims 71 and 72 are allowable as being dependent from an allowable base claim.

**CONCLUSION**

All issues having been addressed, Applicants submit that the instant application is in condition for allowance, and request prompt notification of the same. Authorization is hereby made to charge any fees due or outstanding, or credit any overpayment, to Deposit Account No. 19-0733. If the Examiner has any questions or believes that the application is not in condition for allowance, the Examiner is invited to call Ross Dannenberg of the undersigned's office at (202) 508-9153.

Respectfully submitted,

  
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**MARKED-UP VERSION OF AMENDMENTS MADE**

**IN THE CLAIMS:**

Claim 68 has been amended as follows:

68. (Amended) A method comprising the steps of:
- receiving frame relay data packets into a fast packet network, and
  - switching said frame relay data packets within the fast packet network responsive to a dynamically computed data link connection identifier (DLCI),
- each DLCI corresponding to a plurality of destinations.